

## ABSTRACT

A group I intron-derived ribozyme which binds RNA *in trans*, excises an internal segment from within the RNA, and splices the remaining 5' and 3' ends of the RNA back together (the trans-excision-splicing reaction) is disclosed. The excised segment can be as long as 28 nucleotides, or more, and as little as one nucleotide. The ribozymes of the invention are easily modified to alter their sequence specificity. Such ribozymes represent a new and potentially powerful class of generally adaptable genetic therapeutics.

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